



## PATENT ABSTRACTS OF JAPAN

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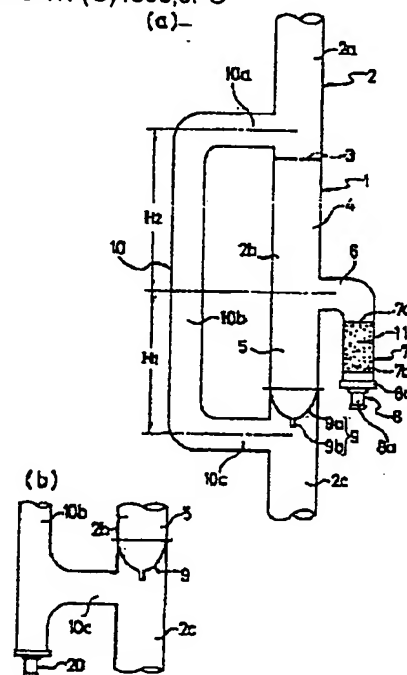
## (54) GUTTER FOR UTILIZING RAINWATER

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## (57) Abstract:

**PROBLEM TO BE SOLVED:** To automatically select the quantity of rain and effectively utilize rainwater by providing a cylindrical main pipe, a cylindrical bypass pipe board with a central space on one side surface of the main pipe, and a cylindrical utilizing water branch pipe bored on the other side surface of the main pipe.

**SOLUTION:** When rain is little, rainwater is carried from an eaves gutter to the rainwater inlet part 2a of a main pipe 2, passed through a mesh 3 and a precipitation part 5, and discharged to a sewage through an effluent discharge part 2c from the discharge port 9b of a receiving tray 9. When rain is much, it is more than the discharge quantity of the discharge port 9b, the level is raised to a level around  $H_1$  or a utilizing water branch pipe 6, the flowing is started through it, and foreign matters are caught by a filter chamber 7, so that water suitable for living water can be taken out from a main utilizing water discharge port 8. When the level is further raised to a level around plus  $H_2$ , or the branch part 10a of a bypass pipe 10, excessive rainwater starts to flow from the branch pipe 10a, and is discharged to the sewage through a connecting part 10b, a combining part 10c, and the effluent discharge part 2c.



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Rain-water utilisation tub for effective use of rain water as potable water - has detachable filter medium arranged inside filter chamber mounted in utilisation water branch pipe which is connected to one side aperture of main pipe and whose end has main utilisation water exhaust port

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The tub includes a main pipe (2) having a rain water introduction portion (2a), an intermediate portion (2b) and a final effluent outlet (2c). A bypass pipe (10) has a coupler (10b) that connects an integrating portion (10c) and a take-off connection (10a) connected in the side apertures of the main pipe. A utilisation water branch pipe (6) is connected to the other side aperture of the main pipe such that it does not overlap to the formation of the bypass pipe.

A main pipe network (3) is arranged to the connection location proximity position in the take-off connection of the intermediate portion. A saucer (9) having an exhaust port (9b) at the centre is arranged to the connection location slippage position in the integrating portion of the intermediate portion. A detachable filter medium (11) is provided inside a cylindrical filter chamber (7) mounted in the utilisation water branch pipe whose end has a main utilisation water exhaust port (8).

ADVANTAGE - Restrains clogging of filter medium, thus preventing rain water path from being impaired. Offers simple structure with effective utilisation of space. Prevents mixing of foreign material to water. (7pp Dwg.No.1/5)

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